Allied Telesis™

Long Distance Stacking

Allied Telesis provides performance and resiliency in a truly distributed network core

Allied Telesis Virtual Chassis Stacking (VCStack™) solution ensures a network with no single point of failure, and a single management entity. As well as connecting collocated switches, a VCStack can be formed over long distance fiber links for a truly distributed network core. Whether your virtual chassis is located in the same equipment rack, or distributed across the campus, VCStack provides resiliency, scalability and ease of management.

VCStack™

Allied Telesis VCStack™ technology

Full network bandwidth

With VCStack, Allied Telesis provides a truly resilient network. In normal operation, all bandwidth and all routing power in the network are fully available for use all the time. If a link or device fails, some of the bandwidth or forwarding power will be reduced, but the network will still be fully operational and all remaining resources will continue to be fully utilized.

Device and path resiliency

Link aggregation between a core VCStack and edge switches ensures that there is no single point of failure in the network. With link aggregation across ports on different virtual chassis members, there is no perceptible disruption in the case of a link failure, and the full bandwidth of the network is available. Link aggregation can also be used to connect network resources, such as servers, across the virtual chassis members. This provides device and path resiliency.

Simple effective management

Using VCStack at the core of your network allows multiple switches to appear as a single virtual chassis. This virtual chassis acts as a single switch, simplifying management. New devices can be added to the stack prior to being physically connected with provisioning. Moreover, remote login allows flexible device management.

Reliable

Virtualization of the network core ensures access to information when you need it, and VCStack fast failover delivers minimal network downtime, so critical resources remain online. When a software upgrade requires a restart of your VCStack, the rolling reboot function keeps online resources available by never having the complete virtual chassis down at any one time.

Scalable

The versatile VCStack solution can scale from meeting the needs of the small business right up to the larger enterprise.

Long Distance Stacking

Long distance stacking enables the VCStack solution to provide a distributed network core. The increased distance enabled by fiber connectivity means that members of the virtual chassis do not have to be collocated, but can be kilometres apart.

All of the benefits and powerful features of VCStack remain exactly the same – Allied Telesis long distance stacking provides a genuine distributed virtual network core.

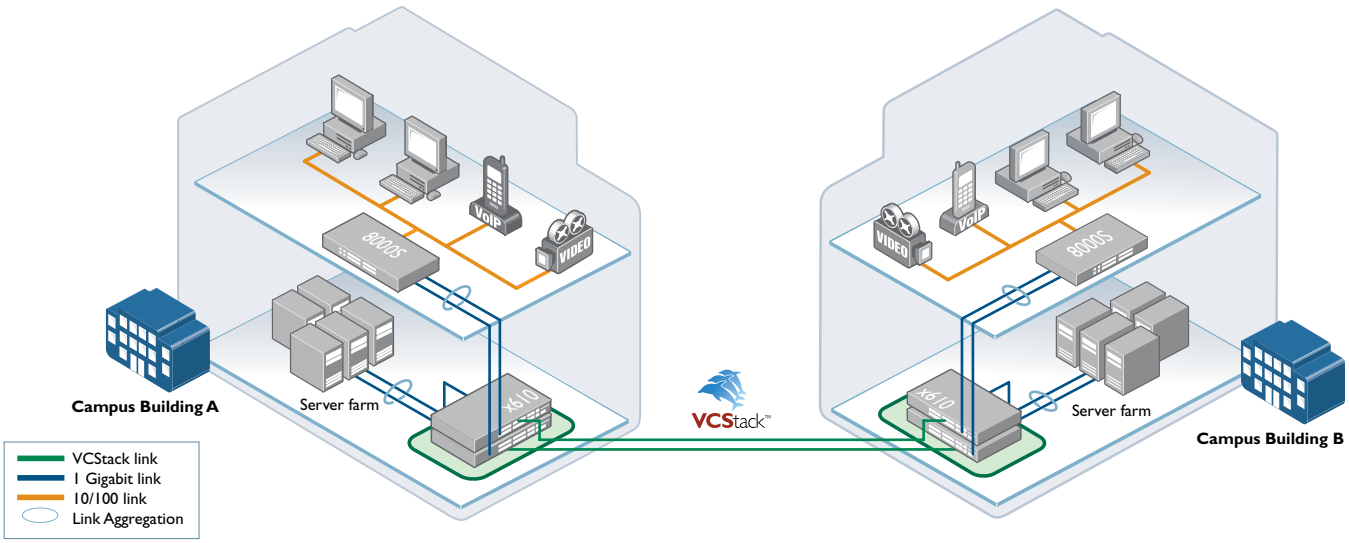
The diagram below shows a campus where the VCStack network core is distributed across two separate buildings. By having two stack members in each location, the benefits of using link aggregation between the core and edge switches remain. The complete distributed virtual chassis provides a solution with no single point of failure, and a single management entity.

This is not merely clustering, nor is it just an implementation of router redundancy. It is a true virtual chassis Layer-3 switch distributed over locations that can be kilometers apart. IPv4 and IPv6 are routed at wirespeed through a single routing table that is synchronized over all the switches, with almost no traffic loss in the case of unit or link failure.

This is also an ideal network core for a data mirroring solution, where the server farm is duplicated across the two physical sites for disaster recovery purposes. As VCStack members can be located up to 10 kilometres apart, a secure data management solution can be implemented simply and efficiently.

The powerful VCStack solution offers uninterrupted network access to critical resources. Whether your virtual chassis is located in the same equipment rack, or distributed across the campus, VCStack provides resiliency, scalability and ease of management.

With long distance VCStack, Allied Telesis adds another significant option to their superior network core solution.



For more information on Allied Telesis VCStack, including Long Distance Stacking, see the "VCStack: Powerful Simplicity" solution guide, available from **alliedtelesis.**com/library/solutions

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